

In the absence of P

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1 Introduction

- P(reposition)-drop in Greek (terminology of Ioannidou and den Dikken 2009):¹
The apparent optionality of the preposition *se/s* ‘at’ in certain contexts ((1)).
 - (1) a. Pame (stin) paralia?
go.1PL at.the beach.ACC
‘Shall we go to the beach?’
b. Tha mino (sto) spiti.
FUT stay.1SG at.the house.ACC
‘I will stay (at) home.’
 - P-drop is contingent upon D-drop: when P is missing, so is D (but not the other way round), i.e. the noun is necessarily bare (cf. Ioannidou and den Dikken 2009; Terzi 2010b).
 - Omitting only P leads to ungrammaticality ((2-a)).
 - Omitting only D leads to a different interpretation, that of an indefinite noun ((2-b)).
 - (2) a. *Pame tin paralia? / *Tha mino to spiti.
go.1PL the beach.ACC FUT stay.1SG the house.ACC
b. Pame se paralia? / Tha mino se spiti.
go.1PL at beach.ACC FUT stay.1SG at house.ACC
‘Shall we go to a beach?’ / ‘I will stay at a home/house.’
 - Two existing accounts – Ioannidou and den Dikken (2009); Terzi (2010b) – propose syntactic treatments of the phenomenon, which rely on unpronounced/silent P and D heads.
 - We propose a semantic analysis, which capitalizes on two key properties of the phenomenon:
 1. The observed dependence of P-drop on D-drop
 2. The interpretative resemblance of P-drop to incorporated properties:
(1-a) is a suggestion for beach-going (cf. Valioui and Psaltou-Joycey 1994).
- ⇒ **P-drop is an instance of pseudo-incorporation** (in the sense of Massam 2001; Dayal 2011).
Pseudo-/ semantic incorporation: A family of phenomena which display semantic but not syntactic properties of incorporation in the sense of Baker (1988) (see Farkas and de Swart 2003; Dayal 2011; Espinal and McNally 2011, for Hungarian, Hindi, Catalan/Spanish).
- (3) a. Busco piso. / Busco pis.
look.for.1SG apartment look.for.1SG apartment
‘I am looking for an apartment.’ (Spanish/Catalan; Espinal and McNally 2011)
b. Mari belyeget gujt.
Mari stamp.ACC collects
‘Mari collects stamps.’ (Hungarian; Farkas and de Swart 2003)

¹From a cross-linguistic perspective, P-drop is rather exceptional. It has also been reported for the Northern Italian dialects Veneto (Longobardi 2001), Bellinzonese and Paduan (Cattaneo 2009), as well as for Kiezdeutsch, a sociolect spoken in German urban areas (Wiese et al. 2009). We will only discuss the properties of the Greek construction here.

- Structure of the talk:
 - Section 2: The empirical facts: The resemblance to pseudo-incorporation
 - Section 3: The proposal
 - Section 4: Conclusion and outlook

2 P-drop as pseudo-incorporation

2.1 Lexical restrictions

- Only *se* ‘at’ can be dropped, no other (locative or directional) Ps (Terzi 2010b):

- (4) a. Efiga *(apo to) spiti / grafio.
left-1SG from the home.ACC office.ACC
- b. Imun *(kato apo tin) karekla.
was-1SG under from the chair.ACC
‘I was under the chair.’

- Only certain nouns:

- Terzi (2010b):

* P-drop is possible with nouns that can be interpreted as locations, e.g. *house, school, beach, university* ((5)).

* P-drop is not possible with means of transportation (e.g. *car, plane*), nor with parts of locations (e.g. *garage, balcony, garden*) ((6)).

- (5) a. Pao gymnastirio / sxolio / grafio / eklisia.
go-1SG gym.ACC school.ACC office.ACC church.ACC
- b. Emina gymnastirio / sxolio / grafio / eklisia mexri arga.
stayed-1SG gym.ACC school.ACC office.ACC church.ACC until late
- (6) a. *Pao/ime treno / leoforio / plio / aeroplano.
go-1SG/am train.ACC bus.ACC ship.ACC plane.ACC
intended: ‘I go by train / bus / ship / plane.’
- b. *Imun balkoni otan egine o sismos.
was-1SG balcony.ACC when occurred the earthquake
intended: ‘I was at/on the balcony when the earthquake occurred.’

→ We follow Terzi in assuming that the noun itself has to be able to be interpreted as a location (see below for a slight amendment).

- Only PP-argument-taking verbs:

- Verbs of directed motion that take PP arguments, e.g. *go, come, arrive, enter, return, bring* ((1-a), (5-a), (7-a,b))

- Verbs of location that take PP arguments, e.g. *be, stay* ((1-b), (5-b), (7-c))

- No PP adjuncts (cf. Ioannidou and den Dikken 2009; Terzi 2010b) ((8-a))

- No manner of motion verbs ((8-b))²

- (7) a. Ftano panepistimio.
arrive.1SG university.ACC
‘I am arriving at the university.’

²Since Greek is a verb-framed language, manner of motion verbs can only combine with PP adjuncts; see Section 3.

- b. Epistrefume kendro.
return.1PL centre.ACC
'We are coming back downtown.'
- c. Ime tualeta.
am toilet.ACC
'I am in the loo.'
- (8) a. *Sinithos troo gymnastirio / sxolio / grafio.
usually eat.1SG gym.ACC school.ACC office.ACC
intended: 'I usually eat at the gym/school/office.'
- b. *Perpatisa / xorepsa / periplanithika gymnastirio / sxolio / grafio /
walked danced meandered gym.ACC school.ACC office.ACC
ekklisia.
church.ACC
intended: 'I walked/danced/meandered at/in the gym/school/office/church.'

2.2 Semantic properties

P-drop in Greek displays hallmark properties of incorporation (cf. Mithun 1984; Baker 1988; van Geenhoven 1998; Chung and Ladusaw 2003; Dayal 2011, among others):

- The noun obligatorily takes narrow scope with respect to quantificational elements in the clause.

- (9-a) can only mean that Anna will not go to any beach, where the negation takes scope over 'beach', and not that there is a specific beach that Anna will not go to.
- (9-b) allows for different beaches that each one went to, where the universal quantifier takes wide scope again.

- (9) a. I Anna de tha pai paralia.
the Anna NEG FUT go.3SG beach.ACC
'Ana will not go to the beach.'
- b. Exun oli pai paralia.
have.3PL all.PL gone beach.ACC
'They have all gone to the beach.'

- The noun does not introduce a discourse referent:

- It cannot support pronominal anaphora ((10)).³

- (10) Pao paralia. #Tin episkeptome sixna.
go.1SG beach.ACC her.CL visit.1SG often
'I am going to the beach. #I visit it often.'

³Ioannidou and den Dikken (2009) report that pronominal anaphora in (10) is fine. The speakers we have consulted do not agree on this judgment, however. We believe that, to the extent that (10) is tolerable, it is due to accommodation (on which see Espinal and McNally 2011). Ioannidou and den Dikken also claim that the noun in P-drop introduces a discourse referent; this may have to do with the fact that the most natural translation into English is with a definite NP. However, this overlooks the fact that the English definite nominals in question are weak definites, which are known to not introduce discourse referents, and which, in general, share many properties with the bare nouns that appear in P-drop or bare singular nouns in other languages (see, for instance, Carlson et al. 2006; Aguilar Guevara and Zwarts 2011).

- The noun cannot be modified ((11-a,b)), except by type/kind modification (for some speakers) ((12)).

- (11) a. *Pigame kondini paralia / kenurjo jimnastirio / omorfi eklisia .
 went.1PL nearby beach.ACC new gym.ACC beautiful church.ACC
intended: ‘We went to the nearby beach/new gym/beautiful church.’
 b. *Exun pai taxidromio to opio apexi elaxista apo do.
 have.3PL gone post-office.ACC which is.away least from here
intended: ‘They have gone to the post office which is very close to here.’

- (12) Ichame pai arxeolojiko musio / kendriko taxidromio.
 had.1PL gone archaeological museum.ACC / central post-office.ACC
 ‘We had gone to the archaeological museum/central post office.’

- In P-drop, the verb and the noun together name an institutionalized activity or state, which is typical for incorporation (Mithun 1984; Dayal 2011).

- The noun has to refer to an institutionalized location, namely to a location that is moved to/ spent time at on a regular basis in order to perform some institutionalized activity there.

- This makes sense of the lexical restriction to certain nouns, discussed in Section 2.1.

⇒ P-drop displays a number of semantic properties (narrow scope, lack of discourse referent, no token modification) that align it with incorporation. In all the above-noted respects, the bare nouns in P-drop differ from regular definite and indefinite noun phrases.

2.3 Syntactic properties

P-drop is more permissive than syntactic incorporation, analysed in terms of head-to-head movement by Baker (1988):

- Strict adjacency is not required.
 - The noun can be topic- or focus-preposed ((13-a)).
 - The noun can be separated from the verb by adverbials ((13-b)).
 - A direct object noun phrase can intervene between the verb and the noun ((13-c)).

- (13) a. Paralia tha pao, sxolio omos oxi.
 beach.ACC FUT go.1SG school however no
 ‘To the beach I will go, but to school not.’
 b. Tha pao ki ego / sigura / avrio paralia.
 FUT go.1SG and I definitely tomorrow beach.ACC
 ‘I will go to the beach too/definitely/tomorrow.’
 c. Pigame ton Kosta nosokomio.
 took.1PL the Kosta.ACC hospital.ACC
 ‘We took Kosta to the hospital.’

- The noun is case-marked for accusative case (ACC).
 (The same holds for Hungarian pseudo-incorporated nouns; see Farkas and de Swart 2003.)

⇒ P-drop displays properties of pseudo-incorporation (see Massam 2001 on Niuean, Farkas and de Swart 2003 on Hungarian, Dayal 2011 on Hindi).

3 The proposal

We propose to analyze P-drop as an instance of pseudo-incorporation.

- The semantics:

- (14) a. $go = \lambda x \lambda y \lambda e [\mathbf{go}(e) \wedge \text{THEME}(e) = y \wedge \text{TRACE}(e)(1) \text{ is at } x]$
 b. $go_{inc} = \lambda P \lambda y \lambda e [P\text{-}\mathbf{go}(e) \wedge \text{THEME}(e) = y]$,
 where $\exists e [P\text{-}\mathbf{go}(e)] = 1$ iff $\exists e_0 [\mathbf{go}(e_0) \wedge \exists x [P(x) \wedge \text{TRACE}(e_0)(1) \text{ is at } x]]$

- A directed motion verb like *go* lexically specifies a motion event (building on Krifka 1998; Zwarts 2005) ((14-a)).
 - * A theme (y) undergoes a change of location.
 - * At the final point (i.e. 1 in (14)) of the trace of such a directed motion event, the theme is located at a location to be provided (x).
- Pseudo-incorporation involves the event predicate go_{inc} , which is modified by a property P (building on Dayal 2011) ((14-b)).
 - * The bare noun denotes this property P.
 - * Presupposition: There exists an event kind (e_0) built on the lexical entry of non-incorporating *go* (as in (14-a)) with the final location at x.

- The syntax:

- The bare noun in P-drop contexts is an NP, which adjoins to VP at LF ((15)).

- (15) $[_{IP} I [_{VP} [_{NP} \text{beach}] go]]$

- The proposal accounts for the empirical facts, discussed in the previous section:

- The bare noun is a predicate (denotes a property rather than an individual).
 → No discourse referent, pronominal anaphora, token modification⁴
- The condition in (14-b) has to be met that there exists an event of the appropriate kind.
 → Only nouns that name locations at which institutionalized activities take place are acceptable in P-drop contexts.
- Incorporation can only take place from within the VP.
 → Only Ps from PP-arguments, which are base-generated within the VP, can be dropped, not from PP-adjuncts, which are base-generated outside the VP (cf. Hoekstra 1999, i.a.).
- The incorporated noun is a phrase not a head.
 → It can move (topic/focus-prepose) as a phrase and is in general syntactically freer than syntactically incorporated nouns in the contexts discussed by Baker and others.

- An initial worry:

- Pseudo-incorporation commonly targets direct objects, but in our examples the target seems to be the complement of a preposition.
- For pseudo-incorporation to be possible, no D or P head can be syntactically realized.

⇒ P-drop does not involve structurally represented (but phonetically unpronounced) P or D heads (contra Ioannidou and den Dikken 2009; Terzi 2010b).

⁴Kind modification is available, since it does not modify an individual (as a first-order modifier) but is a predicate modifier that serves to restrict the property denoted by the bare noun (see, for instance, McNally and Boleda 2004).

3.1 On the absence of D

- As we have already seen, bare nouns in P-drop contexts do not behave like (in)definites:
 - They are discourse opaque and display narrowest scope (recall (9), (10)).
 - Independently of P-drop, Alexopoulou and Folli (2011) have argued extensively against an unpronounced (definite or indefinite) D in Greek:
 - Greek bare nouns in argument position are at most Num(ber)Ps.
 - For them, it is Num and not D that turns predicates into individuals in Greek.
 - Following these authors, there is no need to assume that our bare nouns involve a silent D.
 - In fact, we believe that our bare nouns are even smaller than theirs and involve NPs (no Num layer on top):
 - Their bare nouns can be modified, are marked for number, and apparently introduce discourse referents: on the basis of these facts they argue against an incorporation approach along the lines of Espinal and McNally (2011).
 - Our bare nouns cannot be modified, lack a full-blown semantics of number (only singular nouns, except with pluralia tantum), and do not introduce discourse referents (recall discussion in Section 2).
- ⇒ A detailed comparison of Greek bare nouns in contexts other than P-drop and the question whether some of these involve pseudo-incorporation after all (contra Alexopoulou and Folli) awaits future research (see Lazaridou-Chatzigoga 2011, for discussion). In any event, the arguments of Alexopoulou and Folli against a null D in bare nouns in Greek carry over to P-drop.

3.2 On the absence of P

- Cross-linguistically, the structure of locative and directional PPs is commonly assumed to minimally involve respectively a PlaceP (headed by a locative P) and a PathP on top of that (headed by a directional P) (Jackendoff 1983; van Riemsdijk 1990, and many afterwards).
- We believe that both layers are structurally missing in P-drop contexts.

3.2.1 On the absence of PathP

- The verb lexicalizes the path structure associated with prepositions (e.g. *to*) elsewhere.
 - Greek is a verb-framed language (in the sense of Talmy 1985) (see, e.g., Horrocks and Stavrou 2007); in such languages, motion verbs conflate motion and Path: the Path meaning is part of the verbal meaning (cf. Gehrke 2008).
 - This is also reflected in the lexical representation of a directed motion verb like *go* in (14-a).
- Path/directed motion verbs, as change of location verbs, fall under Rappaport Hovav and Levin's (2010) result verbs:
 - Result verbs specify a scalar change, i.e. change along one ordered dimension.
 - Path/directed motion verbs: the scale is the path, and the verbs lexically provide the path.
 - Final locations (i.e. goals) are expressed by locative PPs in combination with such verbs.

⇒ This makes sense of the restriction of P-drop to particular verbs:

- Path / directed motion verbs (e.g. *go, reach, return*) allow P-drop.
- Manner of motion verbs (e.g. *swim, dance, meander*) do not allow P-drop (recall (8-b)).
 - * In verb-framed languages, manner of motion verbs cannot combine with Path expressions to refer to a directed motion event.
 - * PPs headed by *se* ‘at’ in combination with manner of motion verbs can only refer to the location of the entire event (PP adjuncts); they cannot be interpreted as referring to the goal of a directed motion event (PP arguments) ((16)).⁵

(16) Perpatisa / xorepsa *(sto/stin) gymnastirio / sxolio / grafio /
walked danced at-the.NEU/FEM gym.ACC school.ACC office.ACC
eklisia.
church.ACC
‘I walked/danced at/in the gym/school/office/church.’

⇒ In verb-framed languages, there is no need (or motivation) to treat the overt PP as a PathP.

- Greek *se* ‘at’ is unambiguously locative (following Terzi 2010b): it heads a PlaceP (see also Alexiadou and Anagnostopoulou 2011).
- No (silent) PathP is projected above *se*, also not when *se* is overt (contra Terzi 2010b).
- Hence, in P-drop contexts we can assume that PathP is absent as well.
- This is consistent with the observation made by Terzi that, if at all, only those languages allow P-drop that use the same P for directional (To) and locative meanings (AT):
 - There is no directional *se*: *se* always heads a PlaceP.
 - This is, again, very common for verb-framed languages (e.g. Italian, on which see Folli 2002), but not for satellite-framed languages (e.g. English).

3.2.2 On the absence of PlaceP

We believe P-drop involves the radical absence of PlaceP (not a silent version thereof).

- Recall:
 - Only *se* ‘at’ can be dropped.
 - No other Ps (e.g. ‘under’, ‘behind’, ‘in front of’, ‘above’) can be dropped.
- Zwarts (2008, 2010):
 - AT conveys the most basic and the least semantically loaded locative meaning.
 - Other locative Ps encode additional lexical meanings, such as containment, support, or projective meanings.

⁵The fact that *se* can only be interpreted locatively in combination with ‘atelic’ manner of motion verbs is discussed in detail by Alexiadou and Anagnostopoulou (2011). They furthermore argue that some manner motion verbs can combine with directional PPs headed by, e.g., *mexri/eos* ‘up to’, *apo* ‘from, off’, to form resultative / goal-of-motion constructions. Even under the assumption that Talmy’s distinction between verb-framed and satellite-framed languages should be abandoned or rethought, the main point of this paper is still valid: In combination with manner of motion verbs, *se* can only be interpreted locatively and hence can only head a PP adjunct, not a PP argument. Since furthermore only *se* can be dropped in the first place, other Ps with manner of motion verbs are irrelevant here.

- Where does the meaning of location (AT) come from?

Option 1: AT is part of the lexical specification of directed motion verbs, recall (14-a).

- But then we might expect P-drop to be much more widespread cross-linguistically.

Option 2: AT is contributed by the noun, which is interpreted as a location.

Thus, *at* can be dropped.

- Our holy grail question: What makes a good institutionalized location?
(The answer may not be strictly linguistic.)

⇒ In P-drop, P is truly absent, and the noun alone provides the (stereotypical) location.

- Ioannidou and den Dikken's (2009) arguments against the radical absence of P from the syntax:
 - Ps are θ -role assigners, the NP receives its θ -role from P.
 - The verb is not capable of assigning a θ -role.
 - The only way out: Otherwise unaccusative verbs such as 'go' switch to transitive verbs in these contexts. This, however, cannot be the case because nouns in P-drop contexts cannot be medialized or passivized.
- We counter these arguments:
 - It could be argued that the verb itself (not P) assigns a goal or location theta role to the noun.
 - The noun in P-drop cannot be medialized/passivized, because it is non-referential; in this respect it behaves on a par with pseudo-incorporated direct objects.

4 Conclusion

- So far, pseudo-incorporation has only been discussed for nouns in direct object position.
- Our data show that it is feasible to extend this account also to nouns that otherwise appear in argument PPs.
- Pseudo-incorporation is a means to describe an institutionalized activity/state/motion – akin to weak definites in other languages (cf. Carlson et al. 2006; Aguilar Guevara and Zwarts 2011).
- Open questions:
 - How does P-drop fit in the typology of bare nouns in Greek?
 - Are there other cases of (pseudo-)incorporation in Greek?
 - What about P-drop in other varieties (Longobardi 2001; Cattaneo 2009; Wiese et al. 2009)?
 - Why is P-drop so rare?
 - * Necessary condition: A language has to be verb-framed in order to allow P-drop?
 - * Sufficient conditions?
 - The exceptionality of *home* / Greek *spiti* 'house':
 - * Other languages allow something like P-drop only with the noun *home* (e.g. German (*da*)heim, Russian *doma*, *domoj*) (cf. Jackendoff 1993; Collins 2007, on English).
 - * Only *spiti* allows modification by possessives (cf. Terzi 2010b); (17-a).
 - * Only *spiti* defies the restriction against adjuncts; (17-b).

- (17) a. Ime spiti mu / tu / tis.
am home.ACC my his her
'I am at my/his/her place.'
- b. Sinithos troo spiti.
usually eat.1SG home.ACC
'I usually eat (at) home.'

– What about case?

- * This is also a concern for I&dD (null Ps and unaccusative verbs are case-featureless) who argue that the noun gets its case feature checked under Spec-Head agreement as last resort, by movement of the NP into Spec, DP.
- * But note: ACC in Greek appears in many contexts that lack a clear case assigner (e.g. on temporal adjuncts).
- * (ACC inside PPs does not necessarily have to be analyzed as being assigned by P; cf. Arsenijević and Gehrke 2009, for an alternative proposal)

– What is the connection with weak definites?

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A A brief comparison with previous accounts

- Where and why we depart from both Ioannidou and den Dikken (2009); Terzi (2010a):
 - There is no empty PathP in Greek (for the reasons discussed above).
 - We do not think that purely syntactic accounts, which assume the same overall syntactic structure and lexical items (whether they are pronounced or not) for P-drop that they assume for cases involving overt Ps and Ds, can do justice to the semantics and in particular to the interpretative differences between P-drop and overt P and D contexts.

A.1 Ioannidou and den Dikken (2009) (I&dD)

- Their proposal:
 - P-drop always involves a silent TO, which has to be licensed by incorporation into the verb.
 - P-drop is restricted to PP arguments.
 - P drop is allegedly banned with particle verbs (e.g. (18)): The position into which the P has to move is already occupied by the particle.
- (18) Particle verbs that do not allow P-drop (according to Ioannidou and den Dikken 2009): *ana-dhyome* ‘emerge, *kata-dhyome* ‘submerge, *kata-reo* ‘collapse, *eks-aplonome* ‘spread
- Our points of criticism:
 - P-drop in these contexts is already banned semantically: The final locations of such motion events cannot be described simply by an *at*-phrase.
 - * The PP arguments combining with these verbs involve *from* (*emerge*), *under* or *into* (*submerge*, *collapse*), and *across* (*spread*).
 - * The fact that these motion events involve different prepositional meanings is already evident from the lexical semantics of the particles themselves, which commonly match the respective Ps semantically: *ana-* ‘up’, *kata-* ‘down’, *ekso-* ‘outward’.
 - I&dD run into problems with particle verbs that do allow P-drop (e.g. (19)) and have to stipulate the re-interpretation of the particle-verb complex as a simple verb.

- (19) Particle verbs that allow P-drop (according to Ioannidou and den Dikken 2009):
an-evaino ‘ascend, *epi-strefo* ‘return, *eks-ago* ‘export, *is-erhome* ‘enter
- (I&dD have nothing to say about the lexical restrictions mentioned in Section 2.1.)
 - (The account is incomplete, since it only addresses directional contexts, though it could easily be extended to cover locative cases as well.)

A.2 Terzi (2010a)

- Her proposal:

- The structure of a locative PP consists of a functional head P_{Loc} , which takes as its complement an empty nominal, PLACE (in the sense of Kayne 2004, 2005) ((20-a)); (20-b) provides examples of Greek locative Ps modifying PLACE.
- Directional PPs involve an additional functional layer on top of such locative PPs.

- (20) a. $[_{PPLoc} [_{PLoc} \emptyset [_{DP} \emptyset [_{XP} \text{locative} [_{NP} \text{PLACE} [_{DP} \text{ground argument}]]]]]]$
 b. $[_{PPLoc} [_{PLoc} [_{DP} \emptyset [_{XP} \text{piso/epano/dipla} [_{NP} \text{PLACE} [_{DP} \text{tu}]]]]]]$
 ‘behind/on/beside him’

- P-drop: The arguments of null Ps are direct instantiations of PLACE ((21)).

- (21) $[_{PredP} [_{Pred} \emptyset [_{VP} V [_{PPGoal} [_{PGoal} \emptyset [_{PPLoc} [_{DP} \text{spiti}_1/\text{grafio}_1 \text{ etc. }] [_{PLoc} \emptyset t_1]]]]]]]]$

- In order to render the Edge of the silent Ps (P_{Loc} , and additionally P_{Goal} in directional contexts) overt, the nominals that instantiate PLACE move to Spec, P_{Loc} (and further Spec, P_{Goal}). (This move is inspired by Collins’s (2007) account of English *home*.)
- Subsequent movement of PP_{Loc} (PP_{Goal}) into Spec, PredP takes place.
- The ban on P-drop with source PPs follows from the more complex structure of SourcePPs (building on insights from Svenonius 2010; Pantcheva 2011): Sources involve an additional layer above Goal PPs ((22)).

- (22) $V [_{PPSource} [_{PSource} \text{apo} [_{PPGoal} [_{PGoal} \emptyset [_{PPLoc} [_{PLoc} \text{se}/\emptyset [_{DP} \text{spiti}]]]]]]]]$
 ‘from home’

- Our points of criticism:

- Treating the nouns in P-drop contexts as instances of PLACE is counter-intuitive:
 - * PLACE items are usually the projective parts (*front*, *hind*, *side*, etc.) of projective prepositions (such as *in front of*, *behind* etc.), but not full-blown lexical nouns.
 - * Given that *at* is a non-projective P, we generally doubt that such Ps even involve PLACE.
- It is not clear why the structure in (22) should ban P drop in source contexts.
 - * In addition to the empty Goal P, we could assume an empty Source P.
 - * If all P heads involved remained empty, the noun would just have to move through another Specier.